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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------|
| 10/783,609  | 02/20/2004  | David Voeller        | HE 8571 U1                    | 1618             |
| 1688 7590 01/09/2007<br>POLSTER, LIEDER, WOODRUFF & LUCCHESI<br>12412 POWERSCOURT DRIVE SUITE 200<br>ST. LOUIS, MO 63131-3615 |             |                      | EXAMINER<br>RATCLIFFE, LUKE D |                  |
|   |             |                      | ART UNIT                      | PAPER NUMBER     |
|   |             |                      | 3662                          |                  |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 01/09/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/783,609             | VOELLER ET AL.      |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Luke D. Ratcliffe      | 3662                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/20/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,7,9,10,14,17,19,23-25,30,36-39,44,49 and 61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,9,10,14,17,19,23-25,30,36-39,44,49 and 61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

**Claims 1, 2, 7, 9, 10, 14, 30, 36, 37, 38, 39, 44, 49, and 61 are rejected under 35 U.S.C. 102(e) as being anticipated by Merrill (6862544).**

Referring to **claims 1, 36, and 44**, Merrill shows a vehicle wheel system including an imaging sensor (figure 2 Ref 30), wherein the central processing unit is configured to receive at least the distance information from the image sensor to facilitate one or more vehicle wheel rim service procedures (column 2 line 15-65).

Referring to **claim 2**, Merrill shows a vehicle wheel service system wherein the system is a wheel balancing system (column 2 line 15-65).

Referring to **claim 7**, Merrill shows a vehicle wheel service system wherein the central processing unit is further configured to utilize the distance information to identify a surface profile of a vehicle wheel rim (column 2 line 15-65).

Referring to **claim 9**, Merrill shows a central processing unit that is further configured to utilize the distance measurements to calculate radial runout (column 4 line 58-67).

Referring to **claim 10**, Merrill shows a central processing unit that is further configured to utilize the distance measurements to calculate lateral runout (column 4 line 58-67).

Referring to **claim 14**, Merrill shows a vehicle wheel service system wherein the central processing system unit is further configured to utilize the distance information to identify a miss-centering of the vehicle wheel rim on the rotation support structure (column 3 line 60-column 4 line 2).

Referring to **claim 30**, Merrill shows a vehicle wheel service system wherein the central processing unit is further configured to utilize said distance information to alter a

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configuration of one or more components of the improved vehicle wheel service system (column 2 line 15-65).

Referring to **claim 37**, Merrill shows a wheel parameter measurement apparatus for a dynamic wheel balancer wherein the extracted data identifies a feature location on the mounted wheel assembly (column 2 line 15-65).

Referring to **claim 38**, Merrill shows a wheel parameter measurement apparatus for a dynamic wheel balancer wherein the extracted data identifies a feature dimension on the mounted wheel assembly (column 2 line 15-65).

Referring to **claim 39**, Downing shows a wheel parameter measurement apparatus for a dynamic wheel balancer wherein the extracted data identifies a configuration of the at least one feature on the mount wheel assembly (column 2 line 15-65).

Referring to **claims 49 and 61**, Merrill shows acquiring stereoscopic images of the wheel rim (figure 3 and column 2-4).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merrill (6862544) in view of Conheady (20020018218).**

Referring to **claim 9**, Merrill shows a vehicle wheel system including an imaging sensor (figure 2 Ref 30), wherein the central processing unit is configured to receive at least the distance information from the image sensor to facilitate one or more vehicle wheel rim service procedures (column 2 line 15-65). However Merrill does not teach viewing a wheel edge profile.

Conheady shows a vehicle wheel service system wherein the one or more figures include a wheel rim edge profile (paragraph 29). It would have been obvious to modify Merrill to include the edge profile viewing portion as disclosed by Conheady because this is a common feature that is viewed with this type of wheel alignment system and adds no new or unexpected results.

Referring to **claim 23**, Merrill shows a vehicle wheel system including an imaging sensor (figure 2 Ref 30), wherein the central processing unit is configured to receive at least the distance information from the image sensor to facilitate one or more vehicle wheel rim service procedures (column 2 line 15-65). However Merrill does not show a feature that includes an installed imbalanced correction weight.

Conheady shows a vehicle wheel service system wherein the one or more features includes an installed imbalance correction weight. It would have been obvious to modify Merrill to include installing an imbalance correction weight because this is a common feature in wheel balancing systems and adds no new or unexpected results.

**Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merrill (6862544) in view of Ripley (4723445).**

Referring to **claim 17**, Merrill shows a vehicle wheel service system wherein the central processing unit is further configured to utilize the distance information to identify one or more features of the vehicle wheel assembly (paragraph 4-7). However Merrill does not show features to be spoke configuration or spoke profiles.

Ripley shows features to be spoke configuration or spoke profiles (column 2 lines 27-46). It would have been obvious to modify Conheady to include features to be spoke configuration or spoke profiles because these features are necessary when determining the balance of a wheel.

**Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merrill (6862544) in view of Lovalenti (4584469).**

Referring to **claim 24**, Merrill shows a vehicle wheel system including an imaging sensor (figure 2 Ref 30), wherein the central processing unit is configured to receive at least the distance information from the image sensor to facilitate one or more vehicle wheel rim service procedures (column 2 line 15-65). However Merrill does not show one of the features to be a wheel rim surface defect.

Lovalenti shows one of the features to be a wheel rim surface defect (column 1 lines 30-65). It would have been obvious to modify Merrill to include the features taught by Lovalenti because this feature is necessary when determining the balance of a wheel.

**Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merrill (6862544) in view of Carter (20020000121).**

Referring to claim 25, Merrill shows a vehicle wheel system including an imaging sensor (figure 2 Ref 30), wherein the central processing unit is configured to receive at least the distance information from the image sensor to facilitate one or more vehicle wheel rim service procedures (column 2 line 15-65). Merrill however doesn't specifically show where to place one or more correction weights.

Carter does show where to place one or more correction weights (paragraph 4). It would have been obvious to modify Merrill to include the ability to show the placement of the correction weights as taught by Carter because this is a common feature of a wheel balance system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke D. Ratcliffe whose telephone number is 571-272-3110. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lpr

LDR

A handwritten signature in black ink, appearing to read "Thomas H. Tarcza".

THOMAS H. TARCZA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600